

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P4031PWO-R/Bi	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2004/012991	International filing date (day/month/year) 16.11.2004	Priority date (day/month/year) 17.11.2003	
International Patent Classification (IPC) or national classification and IPC F16B37/06, F16B5/04, B21 K1/70			
Applicant PROFIL-VERBINDUNGSTECHNIK GMBH & CO. KG			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012991

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1, 3-27 as originally filed/furnished 19.09.2005 with letter
 pages* 2, 2a received by this Authority on of 19.09.2005
 pages* _____ received by this Authority on _____

the claims:
 nos. _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19 19.09.2005 with letter
 nos.* 1-57 received by this Authority on of 19.09.2005
 nos.* _____ received by this Authority on _____

the drawings:
 sheets 1/4-4/4 as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012991

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement

Novelty (N)	Claims	1-57	YES
	Claims		NO
Inventive step (IS)	Claims	1-26, 28-57	YES
	Claims	27	NO
Industrial applicability (IA)	Claims	1-57	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1 Reference is made to the following document:

D1: US-A-3 736 969 (WARN H, SW ET AL)
5 June 1973 (1973-06-05).

2. INDEPENDENT CLAIM 1

2.1 Novelty

Document D1 is considered to be the prior art closest to the subject matter of claim 1. Said document discloses a functional element as per the preamble of claim 1.

The subject matter of claim 1 consequently differs from the subject matter of document 1 in that an annular recess is provided between the annular lip and the free end-face of the stamped segment.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012991

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

2.2 Inventive step

The problem of increasing the strength of an assembled component by using thick sheet metal parts is solved in that, in addition to the use of the annular groove and the annular lip (see the description in the application, page 18, lines 21-22), the annular recess allows the functional elements to be attached even more securely to the sheet metal part (see page 19, lines 12-20).

The solution to the above problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)). The reasons are as follows:

the available prior art contains nothing that might encourage a person skilled in the art to arrange the annular recess in such a manner.

3. INDEPENDENT CLAIM 27

3.1 Dependent claim 27 does not contain all the features disclosed in claim 1. Claim 27 should therefore be considered an independent claim.

3.2 The subject matter of claim 27 differs from the functional element known from D1 in that the lip is annular.

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012991

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

The solution to the above problem, as proposed in claim 27 of the present application, cannot be considered inventive (PCT Article 33(3)). The reasons are as follows:

the lip is annular because the stamped segment, likewise, is annular; a rivet with an annular stamped segment is a conventional design in the art.

4. INDEPENDENT CLAIM 34

4.1 Novelty

Document D1 is considered to be the prior art closest to the subject matter of claim 34. Said document discloses an assembled component as per the preamble of claim 34.

The subject matter of claim 34 consequently differs therefrom in that the sheet material fills the annular recess, at least in part.

The subject matter of claim 34 is therefore novel (PCT Article 33(2)).

4.2 Inventive step

The arguments in this regard are similar, *mutatis mutandis*, to those set out in Box 2.2 above.

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012991

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

The solution to the above problem, as proposed in claim 34 of the present application, therefore involves an inventive step (PCT Article 33(3)).

5. INDEPENDENT CLAIM 53

5.1 Novelty

Document D1 is considered to be the prior art closest to the subject matter of claim 53. Said document discloses a method for the manufacture of an assembled component as per the preamble of claim 53.

The subject matter of claim 53 consequently differs therefrom in that the sheet material is shaped to form an annular collar surrounding the lip.

The subject matter of claim 53 is therefore novel (PCT Article 33(2)).

5.2 Inventive step

The arguments in this regard are similar, *mutatis mutandis*, to those set out in Box 2.2 above.

The solution to the above problem, as proposed in claim 53 of the present application, therefore involves an inventive step (PCT Article 33(3)).

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012991

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

6. INDEPENDENT CLAIM 57**6.1 Novelty**

The available prior art does not disclose either a functional element with the features of the preamble of claim 57 or a method for the manufacture thereof as per the characterising part of claim 57.

The subject matter of claim 57 is therefore novel (PCT Article 33(2)).

6.2 Inventive step

The available prior art contains nothing that might suggest to a person skilled in the art either a functional element of this kind with an annular lip and an annular recess between said lip and the free end-face of the stamped segment or methods for the manufacture thereof.

The solution to the above problem, as proposed in claim 57 of the present application, therefore involves an inventive step (PCT Article 33(3)).

7. DEPENDENT CLAIMS

Claims 2-26 and 28-33, if considered to be dependent on one of claims 1-26, and dependent

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/EP2004/012991
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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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claims 35-52 and 54-56 therefore also satisfy the requirements of the PCT in respect of novelty and inventive step.